RDT Security Testing

1. CLEAR CPU MEMORY

    A.   Check counter, or constant, used for iteration of purge cycles for correct numerical value (1000_{10}).

    B.   Initiate memory purge program.

    C.   When memory purge is complete, verify counter value of zero, take memory dump, and verify that all non ROM locations in memory are zeroized.

2. CLEAR DISC MEMORY

    A.   Verify disc purge cycle counter for correct numerical value (3).

    B.   Initiate disc purge program.

    C.   When disc purge is complete, verify counter value of zero, dump disc memory, and verify that all locations on disc are zeroized. If disc memory dump is not possible verify statistically, by randomly sampling fifteen 132 byte blocks before and after purge, that all locations on disc are zeroized.

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3. MESSAGE SEGMENT CONTINUITY VERIFICATION

Through utility/console program, read an entire

TTY and data message from disc ensuring that:

   a) the entire message is contiguously written

   to disc; and

   b) that each block is both preceded by and

   followed by the TSN associated with the

   message. Choose messages of average

   length, i.e., 1970 bytes for TTY and

   1200 records for data at all possible

   record lengths.

4. TSN CHECK LOGIC VERIFICATION

Alter one instruction in the program code that

performs the TSN check. System should halt when

TSN check program is executed.

5. SECURITY MISMATCH VALIDATION

   A. Enter valid TTY messages that have header

   classifications that are less than that

   of the text. Use the following input

   devices:

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5. <u>SECURITY MISMATCH VALIDATION</u> - (continued)

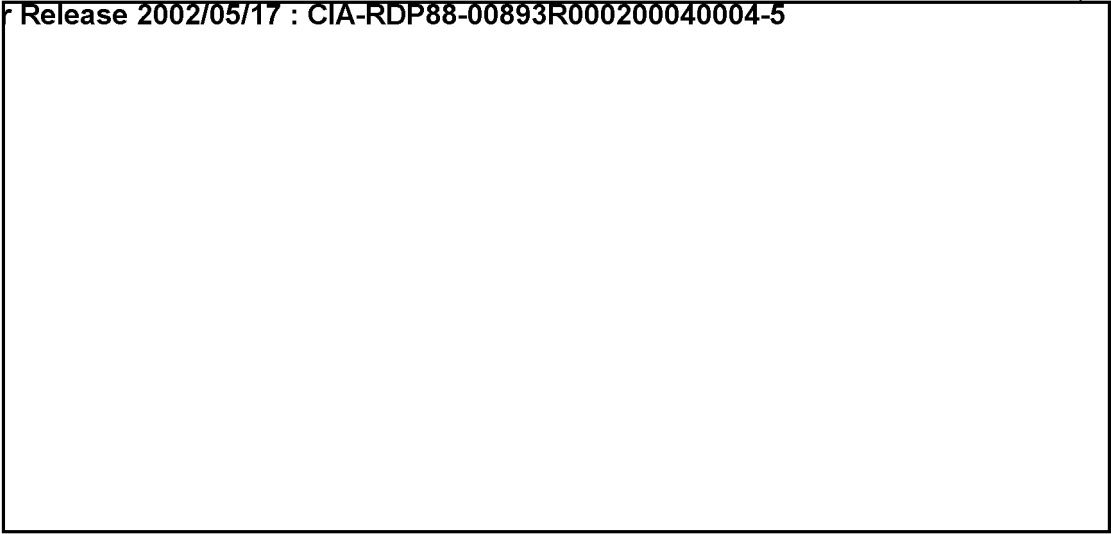| HEADER	TEXT
TTY	TTY
CRT	TTY
CR	TTY
PTR	PTR
CRT	PTR
CR	PTR
CRT	CRT

B. Enter valid DATA messages that have header classifications that are less than that of the text. Use the following input devices:

HEADER	TEXT
CRT	CRT
CRT	MT
CRT	CR
CR	CR
CR	CRT
CR	MT

C. All of the above inputs should fail security validation and be presented to the operator for action.

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